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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,638	10/18/2004	Jill MacDonald Boyce	PU020126	6343
24498 7590 12/07/2007 THOMSON LICENSING LLC Two Independence Way Suite 200 PRINCETON, NJ 08540			EXAMINER AHMED, ENAM	
			ART UNIT 2112	PAPER NUMBER
			MAIL DATE 12/07/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

704

Office Action Summary	Application No.	Applicant(s)	
	10/511,638	BOYCE, JILL MACDONALD	
	Examiner	Art Unit	
	Enam Ahmed	2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/18/04</u> | 6) <input type="checkbox"/> Other: _____ |

Non – Final

Specification

1. The disclosure is objected to because of the following informalities:

On page 9 and line 17, the specification mentions "trellis encoder 136" which is not consistent with figure 1.

On page 11 and line 11, the specification mentions "source decoder 265" which is not consistent with figure 2.

On page 12 and lines 19-20, the specification mentions "source decoder 265" which is not consistent with figure 2.

On page 13 and line 5, the specification mentions "source decoder 265" which is not consistent with figure 2.

On page 11 and line 10, the specification mentions " a transport DEMUX 250" which is inconsistent with figure 2 because it shows "a transport MUX" not "a transport DEMUX".

On page 19 and line 19, the specification mentions " a transport DEMUX 250" which is inconsistent with figure 2 because it shows "a transport MUX" not "a transport DEMUX".

On page 13 and line 5, the specification mentions " a transport DEMUX 250" which is inconsistent with figure 2 because it shows "a transport MUX" not "a transport DEMUX".

Drawings

- a. The drawings are objected to because:

With respect to figure 1, there is no "trellis encoder 136".

With respect to figure 2, "source decoder 260" is not consistent with "source decoder 265" from the specification On page 11 and line 11, on page 12 and lines 19-20 and on page 13 and line 5.

With respect to figure 2, " a transport DEMUX 250" is inconsistent with "a transport MUX" from the specification on page 11 and line 10, on page 19 and line 19 and On page 13 and line 5.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

35 U.S.C. 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-9, 10-12 and 14-21 are rejected under 35 U.S.C. 102(b) as being unpatentable over Rhee (U.S. Patent No. 6,421,387).

With respect to claims 1 and 12, the Rhee reference teaches a Forward Erasure Correction (FXC) encoder for computing FXC parity superpackets across information superpackets for subsequent recovery of any entire ones of the information superpackets that have been at least partially compromised due to synchronization loss (column 6, line 63 – column 7, line 9), (column 7, lines 19-37), (column 8, line 33 – column 9, line 30).

With respect to claims 3 and 14, the Rhee reference teaches wherein the FXC encoder computes the FXC parity superpackets across the information superpackets at

one byte per each of the information superpackets (column 1, line 60 – column 2, line 3), (column 2, line 45 – column 3, line 11).

With respect to claims 4 and 15, the Rhee reference teaches comprising a multiplexer for multiplexing the information superpackets and the FXC parity superpackets prior to any transmission thereof (column 2, line 45 - column 3, line 10).

With respect to claims 5 and 16, the Rhee reference teaches wherein the multiplexer assigns different Process IDentifiers (PIDS) to the FXC parity superpackets than the information superpackets (column 11, lines 3—39) and (column 11, lines 51-60).

With respect to claims 6 and 17, the Rhee reference teaches wherein the FXC encoder computes the FXC parity superpackets using Reed Solomon (RS) codes (column 6, line 63 - column 7, line 9)

With respect to claims 7 and 18, the Rhee reference teaches a multiplexer for generating FXC sync transport packets that indicate a correspondence between superpacket sequence number start positions (column 11, lines 40-60).

With respect to claims 8 and 19, the Rhee reference teaches wherein the FXC parity superpackets are computed over time periods corresponding to an expected

length of at least one synchronization loss period (column 9, line 54 – column 10, line 4) and (column 10, lines 29-37).

With respect to claims 9 and 20, the Rhee reference teaches a Forward Erasure Correction (FXC) decoder for computing FXC parity superpackets across information superpackets for subsequent recovery of any entire ones of the information superpackets that have been at least partially compromised due to synchronization loss (column 5, lines 38-55), (column 6, line 63 – column 7, line 9).

With respect to claims 10 and 21, the Rhee reference teaches wherein said FXC decoder further decodes FXC sync transport packets to determine superpacket sequence numbers and superpacket positions for both the FXC parity superpackets and the information superpackets (column 11, line 66 – column 12, line 17).

With respect to claim 11, the Rhee reference teaches wherein said FXC decoder is adapted to receive an error signal that indicates an erasure position corresponding to the information superpackets that have been at least partially compromised due to the synchronization loss (column 5, line 56 – column 6, line 4).

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rhee (U.S. Patent No. 6,421,387) in view of Schuster et al. (U.S. Patent No. 6,145,109).

With respect to claims 2 and 13, all of the limitations of claims 1 and 12 have been addressed. The Rhee reference does not teach wherein the FXC encoder computes the FXC parity superpackets across the information superpackets at one byte per each of the information superpackets. The Schuster et al. reference teaches wherein the FXC encoder computes the FXC parity superpackets across the information superpackets at one byte per each of the information superpackets (column 5, lines 49-62). Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined the references Rhee and Schuster to incorporate wherein the FXC encoder computes the FXC parity superpackets across the information superpackets at one byte per each of the information superpackets into the claimed invention. The motivation for wherein the FXC encoder computes the FXC parity superpackets across the information superpackets at one byte per each of the

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information superpackets is a powerful system for handling packet loss that may arise in the communication of real time media signals (column 2, lines 10-11 - Schuster et al. reference)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Enam Ahmed whose telephone number is 571-270-1729. The examiner can normally be reached on Mon-Fri from 8:30 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques, can be reached on 571-272-6962.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EA

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11/28/07

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